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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,495	02/28/2002	Kiyohito Ishida	SUG-014-USA-P	7467

7590 05/08/2003

TOWNSEND & BANTA
601 PENNSYLVANIA AVENUE, N.W.
SUITE 900, SOUTH BUILDING
WASHINGTON, DC 20004

EXAMINER

YEE, DEBORAH

ART UNIT PAPER NUMBER

1742

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/084,495

Applicant(s)

ISHIDA ET AL.

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 11 and 14 to 27 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 11 and 14 to 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watari et al. (US Patent No.5,922,145).

Watari discloses specific steel alloy examples in Tables 1 to 4, 9, 11 and 13 which meet or closely meet the claimed composition and when calculated, satisfy the claimed provisos. Moreover, the abstract discloses the presence of titanium carbosulfide compounds. Although prior art does not teach the compound phase of 0.1 to 10% as recited by the claims, such amount would be expected since compositional limitations are met, and in absence of proof to the contrary. Also Watari teaches using steel for machinery for industrial use which would broadly include dies.

Even though prior art does not teach the claimed provisos, such would not be a patentable distinction. Note that it has been held that there is no invention involved in the discovery of a general formula if it covers a composition described in the prior art, see *In re Cooper et al*, 57USPQ117.

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Claims 16 to 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leban (US Patent 5,013,524), Japanese patent 9-296221, Japanese patent 8-260107, Honkura et al (US Patent 4,705,581) or Saito et al (US Patent 5,190,722)

Each reference teaches steel alloy examples which meet or closely meet one or more of the recited compositions. See Leban, alloys A, B and C in Table of columns 3 and 4; JP'221, C, E, F on page 6; JP'107, alloys 4,9,10,14,19 and 20 in Table on page 7; Saito, alloys 1-11, Table 1 of columns 5 and 6; and Honkura, alloys A-U in Table 1 of columns 5 and 6.

Note that the English abstract of JP'221 discloses $Ti_4C_2S_2$ precipitate, and the English abstract of JP'107 discloses a Ti-C-S group inclusions. Although the other prior art does not teach a Ti/Zr-C-S/Se/Te compound as recited by the claims, such would be expected since the compositional limitations are closely met and in absence of proof to the contrary.

Even though prior art does not teach the claimed provisos, such would not be a patentable distinction. Note that it has been held that there is no invention involved in the discovery of a general formula if it covers a composition described in the prior art, see In re Cooper et al, 57USPQ117.

In regard to the product claims, Leban teaches using steel for molds/dies.

Allowable Subject Matter

Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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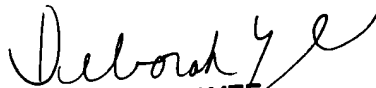
The following is a statement of reasons for the indication of allowable subject matter: The art of record does not teach or fairly suggest a steel alloy containing 0.5 to 2.5% C and the claimed ratio $(\text{Ti}+0.52\text{Zr})/(\text{S}+\text{Se}+\text{Te})$ at 1 to 4.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy
May 6, 2003


DEBORAH YEE
PRIMARY EXAMINER